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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/775,634

02/10/2004

Jon D. Pearson

JPA-1

1328

20874

7590

05/18/2005

WALL MARJAMA & BILINSKI
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EXAMINER

MAYO, TARA L

ART UNIT

PAPER NUMBER

3671

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,634

Applicant(s)

PEARSON, JON D.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 3A and 3B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is advised to review the following with particular attention to the Brief Description of the Drawings and the Detailed Description of the Invention.

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).

- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the

Art Unit: 3671

invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

Art Unit: 3671

subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 through 3, 7 through 9 and 13 through 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Gordon (U.S. Patent No. 6,665,898 B2).

Gordon '898, as seen in Figures 3A, 3B, 4 and 7, shows an apparatus (24) for adjusting firmness, support, or sag of a mattress, comprising:

with regard to claim 1,

a substantially convex cross-sectional shape that is thicker in the center region and gradually thinner toward the edges (claims 5, 7 and 14);

a material and constitution for maintaining the convex shape under the weight of the mattress and a person (Figure 3B); and

a set of dimensions large enough to adjust firmness, support, or sag for the majority of an area of the mattress used by the person (col. 2, lines 38 through 44);

with regard to claim 2,

wherein the apparatus comprises a substantially oval shape;

with regard to claim 3,

wherein the apparatus is inflatable to achieve adjustability to the level of firmness, support or sag;

with regard to claim 7,

a plurality of inflatable chambers (32B, 32C, 32D);

a substantially convex cross-sectional shape, after inflation, that is thicker in the center region and gradually tapered toward the edges;

Art Unit: 3671

an arrangement and shape of the chambers for maintaining the convex shape under the weight of the mattress and a person;

a set of dimensions large enough to adjust firmness, support, or sag for the majority of an area of the mattress used by the person; and

an adjustability of firmness, support, or sag controlled by degree of inflation of said chambers;

with regard to claim 8,

wherein the plurality of chambers are inflatable by way of at least one inflation opening;

with regard to claim 9,

wherein the plurality of chambers are separate, with each chamber inflatable by way of a separate inflation opening (col. 3, line 59 through col. 4, line 4);

with regard to claim 14,

wherein the apparatus is placed between a mattress and a box spring (col. 3, lines 18 through 21);

with regard to claim 15,

wherein the mattress is a king-size mattress (col. 3, line 34);

with regard to claim 16,

wherein the mattress is a queen-size mattress (col. 3, line 34);

with regard to claim 17,

wherein the mattress is a double-size mattress (col. 3, line 34); and

with regard to claim 18,

wherein the mattress is a twin-size mattress (col. 3, line 14).

With regard to claim 1, as seen in Figure 3B and disclosed in column 2 at lines 38 through 44 and column 3 at lines 3 through 6, the mattress maintains its shape under the weight of a mattress. Furthermore, the apparatus shown by Gordon '898 is capable of being inflated to a degree that it will maintain its shape under the additional weight of a person and meets the claim.

With regard to claim 13, the method steps recited therein are inherent to the use of the device shown by Gordon '898.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 5, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon (6,665,898 B2) in view of Reeder et al. (U.S. Patent No. 6,460,209 B1).

Gordon '898 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claims 4 and 10,

baffles comprising a flexible material attached inside the apparatus to the top and bottom thereof, with shorter pieces of the flexible material located toward the edges and with longer pieces of the flexible material located in the center areas; and

with regard to claims 5 and 11,

Art Unit: 3671

a plurality of hollow chambers attached inside the apparatus attached to the top and bottom thereof, with shorter hollow chambers located toward the edges and with longer hollow chambers located in the center areas.

Reeder et al. '209, as seen in Figures 11 and 12, show an apparatus (96) for adjusting the firmness, support or sag of a mattress (52) including baffles comprising flexible material attached inside the apparatus to both the top and the bottom thereof preventing the further expansion of the apparatus at those points, with shorter pieces (218) of the flexible material located toward the edges to keep the edges thinner, and with longer pieces (218') of the flexible material located in the center areas to allow the center areas to expand thicker when inflated (col. 22, line 64 through col. 23, line 34); and further comprising a plurality of hollow chambers attached inside the apparatus with shorter hollow chambers (224) located toward the edges and with longer hollow chambers (224') located in the center areas.

With regard to claims 4 and 10, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made to modify the device shown by Gordon '898 such that it would include baffles as taught by Reeder et al. '209 to customize desired areas of support.

With regard to claims 5 and 11, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made modify the device shown by Gordon '898 such that it would include hollow chambers as taught by Reeder et al. '209 to customize desired areas of support.

Art Unit: 3671

7. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon (6,665,898 B2) in view of Pepe (U.S. Patent No. 5,787,531 A).

Gordon '898 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claims 6 and 12,

separate inflatable chambers of varying diameters connected to form the convex shape, with chambers having a larger diameter arranged near a center of the apparatus and progressively smaller diameter chambers being arranged toward the edge thereof.

Pepe '531, as seen in Figures 8 and 9, shows an air mattress comprising a plurality of separate inflatable chambers (55) connected to form a convex shape, with chambers having a larger diameter arranged near the center of the mattress and chambers having progressively smaller diameters arranged toward the edge thereof to achieve constant pressure distribution over the length of the mattress (col. 2, lines 61 through 65).

With regard to claims 6 and 12, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made to modify the device shown by Gordon '898 such that it would include inflatable chambers of varying diameter as taught by Pepe '531 to achieve constant pressure distribution over the length of the apparatus.

Response to Amendment

8. The declaration under 37 CFR 1.132 filed 25 January 2005 is insufficient to overcome the rejection of claims 1, 7 and 13 based upon Gordon '898 applied under 35 USC §102(e) as set forth in the last Office action because: a declaration under 37 CFR 1.132 can only be used to overcome a provisional rejection under 35 USC §102(e) to show that the claimed invention is not by another.

Response to Arguments

9. Applicant's arguments filed 10 February 2004 have been fully considered but they are not persuasive.

With regard to the drawing objection to Figures 3A and 3B, correction is required because the embodiment shown is not one of Applicant's invention. See page 3 at lines 14 through 17 and page 6, lines 8 through 10. Furthermore, the squishing and bulging shown in the figures is attributable to the flow of fluid in the inflated apparatus which is not pressurized to a degree capable of sustaining its shape under a shift in a load applied to its top surface.

In response to Applicant's statement Gordon '898 fails to disclose an apparatus having a substantially convex cross sectional shape as required by each independent claim of the instant application, the Examiner directs Applicant's attention to the recitation of "convex" lobes in claims 5, 7 and 14 of the reference.

In response to Applicant's statement Gordon '898 fails to teach an apparatus comprising a material and constitution for maintaining the convex shape as require by claim 1 of the instant application, the Examiner contends the material forming the chamber inflatable with air meets

Art Unit: 3671

the claimed functional limitation. As seen in Figure 3B and disclosed in column 2 at lines 38 through 44 and column 3 at lines 3 through 6, the mattress maintains its shape under the weight of a mattress. Furthermore, the apparatus shown by Gordon '898 is capable of being inflated to a degree that it will maintain its shape under the additional weight of a person.

In response to Applicant's statement the device shown by Gordon '898 is not capable of controlling the "firmness, support and sag of the majority of a single sleeping area" as disclosed on page 2 at lines 25 through 26 of the instant application, the Examiner notes Gordon '898 expressly teaches use of the prior art device for correcting sag where the greatest portion of a sleeper's weight is located (col. 2, lines 38 through 44). As each of independent claims 1 and 7 recite "a set of dimensions large enough to adjust firmness, support, or sag for the majority of an area of the mattress used by the person", the claimed limitation is met by the prior art device whereby the broadest reasonable interpretation of "the majority of an area of the mattress used by the person" corresponds to the center region of the mattress as taught by Gordon '898.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

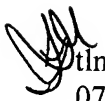
Art Unit: 3671

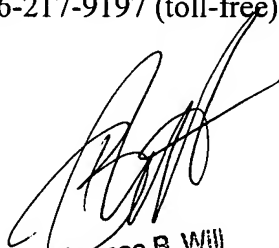
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


07 May 2005


Thomas B. Will
Supervisory Patent Examiner
Group 3671